

BOOK REVIEWS

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Cytokines produced by polymorphonuclear neutrophils: Molecular and biological aspects

Marco Cassatella; Austin, Tex.; 1996; Chapman & Hall; 199 pages.

The role of the neutrophil in the pathophysiologic mechanisms of acute inflammatory processes has been widely recognized, but the specific mechanisms by which long-term effects may be induced by cytokines synthesized by and released from these neutrophils is just now being elucidated. In the text entitled *Cytokines produced by polymorphonuclear neutrophils: Molecular and biological aspects*, Marco Cassatella, a seminal figure in neutrophil cytokine biology, has expertly consolidated much of the world's literature through 1996. This book should be a great help and a great convenience to many readers who will now be able to have at their fingertips a reference source with which to check specific known facts as to which cytokine is increased or decreased from human neutrophils when stimulated under specific conditions by specific agonists.

The organization of the book, in successive chapters, is to begin with the basics, initially addressing the nature of neutrophil in a chapter that serves primarily as an introductory overview to what will be detailed in later portions of the text. In Chapter 2 the numerous cytokines produced by neutrophils are successively addressed, and the regulation of their production as well as their biologic effects is summarized. Quite useful in this chapter, as well as many of the other chapters, is the extensive bibliography. This chapter alone includes 194 references.

The next six chapters (Chapters 3-8 of the nine chapters) address various aspects of the regulation of cytokine production by neutrophils. This is a rather arbitrary organizational scheme that is likely to initially present difficulties to the casual reader's attempt to find specific information that he or she seeks. For example, information regarding the regulation of production of a specific cytokine may be in any or all of these chapters depending on whether one seeks information on in vitro or in vivo regulation, at the level of protein or of mRNA, or regulation by other cytokines versus other agonists. The key to success of this organizational scheme is the completeness of the index, which might have been better expanded. However, once familiar with this organization, the necessary information can be found.

Chapter 3 and Chapter 4 both integrate the work from the author's laboratory with that of other investigators to detail how specific cytokines are upregulated or downregulated by exposure of human neutrophils in vitro to specific agonists. These chapters provide a great deal of specific methods of those publications on the interpretation of

results. However, as reflects our general lack of understanding of basic principles of cytokine regulation in various pathologic conditions, there is little discussion as to general overriding principles as opposed to detailing specific methodologic conditions and results. Each cytokine is separately discussed, and each of the many publications related to the regulation of that cytokine production by human neutrophils is sequentially detailed. The author does provide considerable understanding as to the distinct responses of neutrophils as opposed to mononuclear phagocytes in cytokine production. Chapter 5 extends the data of the previous two chapters to more directly assess the role of individual cytokines in modulating the production of other cytokines by human neutrophils. It can be difficult for a reader who is not intimately familiar with the organizational scheme of this text to know whether the answer to a specific question is more likely to be found in Chapter 3, 4, or 5. In Chapter 6 the regulation of cytokine production by human neutrophils is addressed in a more mechanistic way. If the reader has ascertained in Chapters 3 through 5 that a certain cytokine is, for example, upregulated under certain methodologic conditions, he can turn to Chapter 6 to see what literature is available as to whether this is regulated at the transcriptional, translational, or posttranslational level. This is a very well-organized chapter. Chapter 7 attempts to address the regulation of cytokine production by human neutrophils in specific pathologic conditions. Inasmuch as the literature has largely focused on rheumatoid arthritis, this entity is given the majority of the discussion.

To this point the text has focused on in vitro studies. In Chapter 8 cytokine production by neutrophils in vivo is detailed, much of the chapter summarized in Table 8.1. There is little direct relevance to the vascular surgical patient with the exception of a small section on the production by myocardial neutrophils of cytokines in response to ischemia/reperfusion. In the final chapter the authors attempt to integrate all of the previously described work into general principles. The nature of the stimulating agonist can induce different programs of cytokine synthesis, and these programs may differ between neutrophils and mononuclear phagocytes.

In summary, this is a very well-written and much needed text that presents in a concise format a huge amount of information. This text will be of great interest to the researcher actively involved in cytokine biology who is seeking a convenient reference source to the literature through 1996. It will provide an excellent overview of the field to the casual reader. However, the reader interested specifically in the pathophysiologic mechanisms of vascular diseases will not find much in the way of discussion of direct relevance to this particular patient population. This

largely reflects the lack of understanding of the role of neutrophil cytokine production in the causes of vascular lesions of interest to the vascular surgeon or interventionalist.

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Atlas of aortic surgery

G. Melville Williams and Leon Schlossberg; Baltimore; 1997; Williams & Wilkins; 176 pages.

Despite its title, *Atlas of aortic surgery* is more than an atlas. The book is a monograph by G. Melville Williams, MD, illustrated by Leon Schlossberg, describing the author's personal approach to surgery of the aorta. After digesting its 176 pages, divided into 11 chapters accompanied by 100 illustrations, one fact is clear: Dr. Williams approaches the aorta from the left, retroperitoneally, and retorenally. That there are other approaches to the aorta that are also useful is not discussed, but then, that is the nature of a monograph.

With a very large amount of information packed into not much text, the author describes clearly exactly how he uses this approach to the aorta to deal with the typically encountered aortic diseases and conditions, including aneurysms of varying extent, occlusive disease, and dissections. The instructions are unusually detailed for an operative atlas. Trainees are well advised to read carefully; there is a wealth of wisdom in the cautions and solutions for difficult problems described. Experienced aortic surgeons will recognize the trenchant observations of one who has been there, gotten in trouble, and reflected on how to avoid it next time. Refreshingly, there is even a chapter on managing intraoperative complication. Dr. Williams' candor—"Few like to admit difficulties . . . However, here I admit to considerable experience managing common operative problems . . ."—allows him to impart useful advice, particularly regarding control of bleeding that occurs in aortic surgery.

Schlossberg's illustrative technique is familiar to most who peruse the medical literature. Those in this book range from simple line drawings to fully shaded studies. All are exceptionally clear; each relates to an important point in the text. Few artists share his uncanny ability to depict surgical anatomy as it actually appears to the surgeon. The illustrations are lavishly and precisely labeled. They could stand alone as an independent text.

Combining text and illustrations, this is a powerful atlas. For those undertaking study of the retroperitoneal approach to the aorta, this is the book to pack along on your trip to a center where you will observe the technique firsthand. Ditto for residents who are beginning their exposure to aortic surgery.

A few minor gripes. The illustrations occupy most of the final pages of chapters, the text the beginning pages,

yet the division is not absolute. This means that the distance from text reference to appropriate illustration is inconstant and sometimes great. There is great variation in the tonal quality of illustrations—some are too dark for clarity, some the opposite. Thus the art work is better than the quality of its reproduction.

In my opinion, this volume is a mandatory read for all those who wish to perform retroperitoneal aortic surgery—nowhere is it better nor more succinctly described. The price is a bargain; libraries may wish to consider multiple copies, as I suspect they will be well used.

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Cope's early diagnosis of the acute abdomen, 19th ed.

William Silen; New York; 1997; Oxford University Press; 315 pages; \$26.50.

One of the privileges afforded a reviewer is the opportunity to review a book that is considered a classic in the medical literature. One such book is *Cope's early diagnosis of the acute abdomen*. This review concerns the nineteenth edition of a book first published by Sir Zachary Cope in 1921. The original book by Dr. Cope was based on those dicta that have been repeatedly confirmed by personal experience and observation. The present editor, Dr. William Silen, continues this approach, and therefore the book does not include a bibliography.

The major emphasis of this textbook continues to be clinical rather than laboratory diagnosis. One of the original concerns of Dr. Cope in preparing the first edition was his observation that there were too many patients who suffered from an inordinate delay in the clinical diagnosis and treatment of acute abdominal pain, resulting in poor clinical outcomes. Dr. Silen has additional concerns that the modern clinician has developed an ever-increasing emphasis on expensive and sometimes dangerous laboratory examinations, which has diminished the importance of the history and physical examination of the patient. In the modern era of increasing managed care, containment of costs, and increasing role of the general practitioner as the "gate keeper," the hypothesis of Drs. Cope and Silen concerning the importance of clinical diagnosis of the acute abdomen assumes even more importance.

The text is well written and organized. The book is logically organized, with the first four chapters devoted to the important areas of performing an accurate history and physical examination. The chapter describing laboratory and radiologic tests has been expanded in response to criticisms previously expressed about the eighteenth edition. The chapter on laboratory tests attempts to guide the reader in selecting appropriate tests rather than using every conceivable investigation available. The nineteenth edition text includes examples of appropriate radiologic procedures, with practical examples of specific diagnoses included. The radiographs are well presented and easy for the